FINAL REMOVAL ASSESSMENT SAMPLING REPORT

MAGNA METALS SITE

Cortlandt, Westchester County, New York

SSID No: A28A
EPA ID No.: NYD001394881

DC No: RST3-04-D-0162
TDD No: TO-0010-0146
EPA Contract No: EP-S2-14-01

Prepared for:

U.S. Environmental Protection Agency, Region II
2890 Woodbridge Avenue
Edison, New Jersey 08837

Prepared by:

Removal Support Team 3
Weston Solutions, Inc.
Federal East Division
Edison, New Jersey 08837

June 2018

565324

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LIST OF ATTACHMENTS

1.0 Introduction:

On April 2 through April 6, 2018, the U.S. Environmental Protection Agency (EPA) Region II Removal Action Branch, with the support of Weston Solutions Inc., Removal Support Team 3 (RST 3), performed a vapor intrusion sampling event as part of a Removal Assessment at the Magna Metals Site (the Site). Vapor intrusion samples, consisting of sub-slab soil gas samples, were collected for laboratory analysis from eleven residential properties located in the vicinity of the Site and one commercial facility located on-site. The objective of the sampling event was to verify the presence or absence of volatile organic compounds (VOCs) in the sub-slab soil gas samples collected from the residences and the commercial facility.

1.1 Site Location and Description:

The Magna Metals Facility is located at 510 Furnace Dock Road, Cortlandt, Westchester County, New York. The portion of the parcel that includes the waste handling and disposal areas, referred to as the Site, encompasses the demolished Magna Metals building and the north and westerly leach pits; a building used to warehouse paper; and a portion of the PolyMedco building, used for offices and a laboratory. Residential areas are located around the facility. A wetland area, Furnace Brook, an unnamed tributary, and an unnamed pond are located near the Site. For privacy reasons, unique identifier numbers have been assigned to each property investigated during the sampling event, which includes the one commercial facility, Property P001, and eleven residences comprising Properties P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Refer to Figure 1: Site Location Map and Figure 2: Soil Gas Analytical Results Map.

1.2 Site History and Background:

Metal plating, polishing, and lacquering operations were conducted at the Site from 1955 to 1979. During operations, iron, lead, copper, nickel, zinc chlorides, cyanides, and sulfates were discharged to a series of leaching pits. Spent trichloroethene (TCE) was allegedly discharged to the septic system. Previous investigations and actions were performed by the New York State Department of Environmental Conservation (NYSDEC) and the Westchester County Health Department starting in 1978.

The primary characteristics of the subsurface at the Site and surrounding area consist of a sandy to silty sand overburden unit, approximately 2 to 18 feet thick, overlying Hornblende bedrock. In the leach pit area, it is presumed that much of the overburden material is fill resulting from the installation of the leach pits. The inferred depth is approximately 7 to 10 feet thick. Metal and lamp parts were found buried in this area. Overburden groundwater exists in the form of a very shallow water-bearing unit (typically less than five feet thick). Overburden groundwater flow direction is to the west toward the unnamed tributary, the wetland area, and the confluence of the unnamed tributary and Furnace Brook. Bedrock groundwater flows in a similar direction and some may discharge into the overburden water units.

2.0 Scope of Work:

As part of the Removal Assessment of the Site, RST 3 was tasked by EPA with collecting sub-slab soil gas samples from eleven residential properties located in the vicinity of the Site and one commercial warehouse facility located on-site. All the soil gas samples collected during the sampling event were submitted to a Contract Laboratory Program (CLP) laboratory for analysis of a limited list of VOCs, including vinyl chloride, 1,1-dichloroethene (DCE), trans-1,2-dichloroethene, 1,1-dichloroethane (DCA), chloroethane, 1,2-dichloroethane, cis-1,2-dichloroethene, 1,1,1-trichloroethane, TCE, tetrachloroethene (PCE), and 3-chloropropene, via EPA Method Toxic Organics (TO)-15 (Scan).

3.0 On-Site Personnel:

Name	Affiliation	Duties On-site
Joel Petty	EPA, Region II	On-Scene Coordinator
Michael Garibaldi	Weston Solutions, Inc. RST 3, Region II	Site Project Manager, Site H&S, Site QA/QC, Sample Collection, Sample Management
Adriana Morocho	Weston Solutions, Inc. RST 3, Region II	Sample Collection, Sample Management
Kathryn Donahue	Weston Solutions, Inc. RST 3, Region II	Sample Collection, Sample Management

EPA: U.S. Environmental Protection Agency
H&S: Health and Safety
RST 3: Removal Support Team 3
QA/QC: Quality Control/Quality Assurance

4.0 Site Activities and Observations:

On April 3 through April 6, 2018, EPA and RST 3 completed vapor intrusion soil gas sampling at locations determined by the EPA OSC in eleven residential properties located in the vicinity of the Site and one commercial facility located on-site. One sub-slab soil gas sample was collected from each of the eleven residential properties, and four sub-slab soil gas samples were collected from the commercial facility.

During the sampling event, air monitoring for VOCs was performed using a calibrated MultiRAE equipped with a photo-ionization detector (PID) and capable of measuring VOCs in parts per billion (ppb). All the air monitoring readings observed for VOCs in ambient air inside the residences and the commercial warehouse facility were 0 ppb. Air monitoring readings taken for VOCs at the soil gas sampling port locations during the port installation at each property were 0 ppb, except for Properties P001 (P001-SG002-180406-01 at 86 ppb and P001-SG004-180406-01 at 185 ppb), P010 at 875 ppb, and P012 at 178 ppb.

Refer to Attachment C: Photographic Documentation Log**.**

5.0 Vapor Intrusion Sampling Methodology:

All on-site field work and sampling activities were conducted in accordance with the RST 3 Site-Specific Health and Safety Plan (HASP), Site-Specific Uniform Federal Policy (UFP) Quality Assurance Project Plan (QAPP), and EPA's Environmental Response Team (ERT)/Scientific, Engineering, Response and Analytical Services (SERAS) contractor's Standard Operating Procedure (SOP) Number (No.) 2001: ***General Field Sampling Guidelines*** and SOP No. 1704: ***Summa Canister Sampling.*** The sub-slab soil gas samples were collected using pre-cleaned, 6-liter stainless steel Summa canisters equipped with shut-off valves. All the Summa canisters utilized for the sampling event were purged, batch-cleaned, and prepared for sampling by the assigned laboratory in accordance with EPA Method TO-15. A passive laboratory-calibrated flow controller was attached to each Summa canister prior to sample collection. Sub-slab soil gas sampling ports were installed at all of the properties that were sampled for the first time during this event. A 24-hour period was allowed for the concrete used in the port installation to set completely.

Prior to commencing sampling setup, the newly installed sub-slab soil gas sampling ports were inspected for integrity and probed with metal wire to verify if groundwater had compromised the port. The flow controller attached to the Summa canister was then connected to each subsurface sampling port via Teflon® tubing and stainless steel Swagelok® fittings. Prior to and at the end of each sampling period, the surrounding temperature of each sampling location and the pressure of each Summa canister was measured and recorded. Temperature measurements were obtained using a non-contact infrared temperature gun. Pressure measurements were obtained from the analog manometer which was part of the flow controller assembly. After each Summa canister setup was completed, the canister shut-off valve was opened and each sample was collected over an approximately 24-hour period. At the end of the sampling period, each canister shut-off valve was closed. The sub-slab soil gas samples were collected for a definitive data objective. All sample information was transcribed into EPA's SCRIBE sample management database from which sample labels and chains of custody (COC) record were generated. A sample label affixed to an identification tag was attached to each Summa canister. All the soil gas samples were shipped to the assigned laboratory for analysis.

6.0 Laboratory Receiving Samples:

The following laboratory was utilized during the April 2018 sampling event:

Laboratory Name/Location	Sample Matrix	Analyses
Test America Burlington 30 Community Drive, Suite 11 South Burlington, Vermont 05403 (EPA Procured Laboratory)	Soil gas	VOCs, via EPA Method TO-15 (Scan)

VOCs: Volatile Organic Compounds
TO: Toxic Organics
EPA: U.S. Environmental Protection Agency

7.0 Sample Collection and Dispatch:

From April 4 through April 6, 2018, a total of eleven sub-slab soil gas samples, including P002-SG001-180405-01, P003-SG001-180405-01, P004-SG001-180405-01, P005-SG001-180405-01, P006-SG001-180405-01, P007-SG001-180405-01, P008-SG001-180405-01, P009-SG001-180405-01, P010-SG001-180406-01, P011-SG001-180406-01, and P012-SG001-180406-01, were collected from soil gas ports installed at the eleven residential properties (Properties P002 through P012) at the rate of one soil gas sample per property. In addition, a total of four sub-slab soil gas samples were collected from the commercial facility (Property P001), including P001-SG001-180406-01, P001-SG002-180406-01, P001-SG003-180406-01, and P001-SG004-180406-01.

On April 6, 2018, RST 3 shipped a total of 15 sub-slab soil gas samples under COC Record Nos. 2-040618-173106-0001, 2-040618-174926-0002, 2-040618-175206-0003, and 2-040618-175307-0004 via FedEx Airbill No. 8050-5554-2239 to Test America Burlington, an EPA-procured CLP laboratory, for analysis of a limited list of VOCs, including vinyl chloride, DCE, trans-1,2-dichloroethene, DCA, chloroethane, 1,2-dichloroethane, cis-1,2-dichloroethene, 1,1,1-trichloroethane, TCE, PCE, and 3-chloropropene, via EPA Method TO-15 (Scan).

Refer to Attachment B, Table 1: Sample Collection Summary Table and Attachment D: Chains of Custody Record and FedEx Airbill.

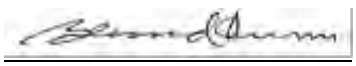
8.0 Analytical Results Summary:

The validated analytical results of the sub-slab soil gas samples collected during the vapor intrusion sampling event were compared with the EPA Site-Specific Regional Screening Levels (RSLs) for residential soil gas. Based on the validated analytical data, all soil gas results were below the Site-Specific RSLs for residential soil gas.

Refer to Attachment A, Figure 2: Soil Gas Analytical Results Map, Attachment B, Table 2: Validated Soil Gas Analytical Results Summary Table – TO-15 VOCs, and Attachment E: Validated Laboratory Data.

Report prepared by:  6/12/2018

Michael Garibaldi — Date
RST 3 Site Project Manager

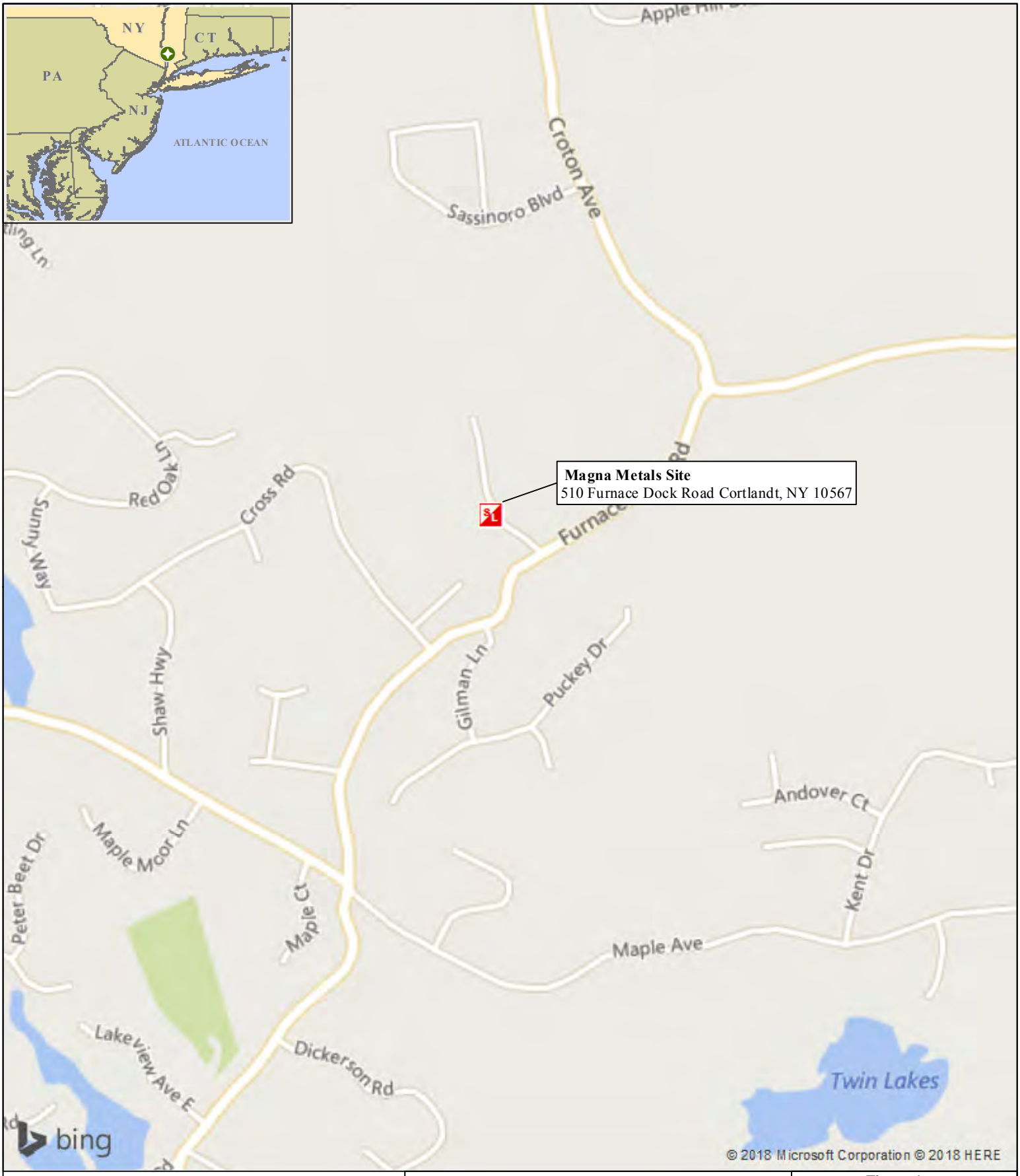
Report reviewed by:  6/12/2018

Bernard Nwosu — Date
RST 3 Group Leader

ATTACHMENT A

Figures

Figure 1: Site Location Map
Figure 2: Soil Gas Analytical Results Map



Legend

S1 Site Location

N

0 0.05 0.1 0.2 0.3 0.4 Miles

Weston Solutions, Inc.

In Association With Scientific and Environmental Associates, Inc., Environmental Compliance Consultants, Inc., Avatar Environmental, LLC, On-Site Environmental, Inc.and Sovereign Consulting, Inc

Figure 1:
Site Location Map

MAGNA METALS SITE
COURTLANDT, NEW YORK

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 3
CONTRACT # EP-S2-14-01

GIS ANALYST:	M. BEUTHE
EPA OSC:	J. PETTY
RST SPM:	M. GARIBALDI
FILENAME:	SITE_LOCATION_MAP.MXD

P004-SG001-180405-01
Trichloroethene - 0.27J µg/m^3

P007-SG001-180405-01
Tetrachloroethene - 0.29J µg/m^3

P004

P007

P002

P002-SG001-180405-01
Tetrachloroethene - 1.1J µg/m^3

P008

P008-SG001-180405-01
Trichloroethene - 0.17J µg/m^3
Tetrachloroethene - 0.31J µg/m^3

Furnace Dock Rd

P001-SG002-180406-01
Tetrachloroethene - 1.5 µg/m^3

P001-SG001-180406-01
Trichloroethene - 0.2J µg/m^3
Tetrachloroethene - 0.79J µg/m^3

P001-SG003-180406-01
Trichloroethene - 1.5 µg/m^3
Tetrachloroethene - 11 µg/m^3
1,1,1-Trichloroethane - 8.4 µg/m^3

P001

P001-SG004-180406-01
Trichloroethene - 2.5 µg/m^3
Tetrachloroethene - 1.7 µg/m^3

Cross Rd

P003-SG001-180405-01
Tetrachloroethene - 0.78J µg/m^3
Trichloroethene - 0.37J µg/m^3

P003

Furnace Dock Rd

P010

P010-SG001-180406-01
Trichloroethene - 0.094J µg/m^3
Tetrachloroethene - 1.1J µg/m^3

P011-SG001-180406-01
Trichloroethene - 0.1J µg/m^3

P011

P005

P005-SG001-180405-01
Trichloroethene - 5.5 µg/m^3
Tetrachloroethene - 11 µg/m^3
1,1,1-Trichloroethane - 2.4 µg/m^3

P009

Cross Rd

P006

P006-SG001-180405-01
Tetrachloroethene - 0.62J µg/m^3

P009-SG001-180405-01
Trichloroethene - 2.6 µg/m^3
Tetrachloroethene - 0.67J µg/m^3
cis-1,2-Dichloroethene - 0.84 µg/m^3

Rosalind Dr

Furnace Dock Rd

P012

Puckey Dr

bing

60 30 0 60 120 180 240 Miles

SCALE
1:2,000

LEGEND

Soil Gas Sample Locations

Property Boundaries

Notes:
J - Indicates an estimated value

Soil Gas Analytical Results Map

MAGNA METALS SITE
COURTLANDT, NEW YORK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 3
CONTRACT # EP-S2-14-01

Weston Solutions, Inc.

In Association With
Scientific and Environmental Associates, Inc., Environmental Compliance Consultants, Inc., Avatar Environmental, LLC, On-Site Environmental, Inc., and Sovereign Consulting, Inc.

GIS ANALYST:	M. BEUTHE
EPA OSC:	J. PETTY
RST 3 SPM:	M. GARIBALDI
FILENAME:	PRELIMINARYRESULTS
FIGURE	0
REVISION	0
DATE MODIFIED	4/30/2018

WESTON SOLUTIONS

ATTACHMENT B

Tables

Table 1: Sample Collection Summary Table
Magna Metals Site
Cortlandt, Westchester County, New York
April 2 through April 6, 2018

Property Number	RST 3 Sample Number	CLP Number	Matrix	Analysis	Canister Number	Flow Control Number	Start				Stop			
							Date	Time	Pressure in. Hg	Temp ^{o}F	Date	Time	Pressure in. Hg	Temp ^{o}F
P001	P001-SG001-180406-01	BE1W4	Soil Gas	TO-15 VOCs	5138	6023	4/5/2018	10:02	-30	57.3	4/6/2018	10:01	-4	50.9
P001	P001-SG002-180406-01	BE1W5	Soil Gas	TO-15 VOCs	5035	6667	4/5/2018	10:10	-30	70.1	4/6/2018	10:09	-8	70.1
P001	P001-SG003-180406-01	BE1W6	Soil Gas	TO-15 VOCs	5549	4725	4/5/2018	10:29	-30	68	4/6/2018	10:24	-8	68
P001	P001-SG004-180406-01	BE1W7	Soil Gas	TO-15 VOCs	2515	3098	4/5/2018	10:40	-30	63.5	4/6/2018	10:38	-6	62.5
P002	P002-SG001-180405-01	BE1T3	Soil Gas	TO-15 VOCs	4141	5172	4/4/2018	7:15	-30	61.1	4/5/2018	7:08	-10	57.5
P003	P003-SG001-180405-01	BE1T4	Soil Gas	TO-15 VOCs	4560	3787	4/4/2018	7:51	-28	75.2	4/5/2018	7:45	-12	82
P004	P004-SG001-180405-01	BE1T5	Soil Gas	TO-15 VOCs	2863	2668	4/4/2018	8:31	-26	65.5	4/5/2018	8:30	-4	68
P005	P005-SG001-180405-01	BE1T6	Soil Gas	TO-15 VOCs	4235	3963	4/4/2018	9:13	-30	60.8	4/5/2018	9:08	-5	59.3
P006	P006-SG001-180405-01	BE1T7	Soil Gas	TO-15 VOCs	3338	4530	4/4/2018	9:46	-30	65.5	4/5/2018	9:42	-6	66.5
P007	P007-SG001-180405-01	BE1T8	Soil Gas	TO-15 VOCs	2911	4193	4/4/2018	3:03	-30	60.5	4/5/2018	2:59	-2	57.8
P008	P008-SG001-180405-01	BE1T9	Soil Gas	TO-15 VOCs	4569	4995	4/4/2018	6:04	-30	63.5	4/5/2018	6:00	-7	64.4
P009	P009-SG001-180405-01	BE1W0	Soil Gas	TO-15 VOCs	3254	6155	4/4/2018	6:36	-30	62.9	4/5/2018	6:33	-16	63.2
P010	P010-SG001-180406-01	BE1W1	Soil Gas	TO-15 VOCs	3659	3188	4/5/2018	1:15	-30	65.3	4/6/2018	1:13	-6	62.6
P011	P011-SG001-180406-01	BE1W2	Soil Gas	TO-15 VOCs	2708	2774	4/5/2018	1:39	-29	66.5	4/6/2018	1:36	-4	63.5
P012	P012-SG001-180406-01	BE1W3	Soil Gas	TO-15 VOCs	3081	2772	4/5/2018	2:08	-30	71.6	4/6/2018	2:00	-1	73.4

Notes:

RST 3 - Removal Support Team 3.

CLP - Contract Laboratory Program.

in. Hg - inches of mercury.

^{o}F - Degrees Fahrenheit.

Soil gas samples analyzed via U.S. Environmental Protection Agency (EPA) Method Toxic Organics (TO)-15 Low Level (LL) scan.

Table 2: Validated Soil Gas Analytical Results Summary Table - TO-15 VOCs
Magna Metals Site
Cortlandt, Westchester County, New York
April 2018

RST 3 Sample Number	[1]EPA Site-Specific RSLs Residential Soil Gas	P001-SG001-180406-01	P001-SG002-180406-01	P001-SG003-180406-01	P001-SG004-180406-01	P002-SG001-180405-01	P003-SG001-180405-01	P004-SG001-180405-01	P005-SG001-180405-01
CLP Number		BE1W4	BE1W5	BE1W6	BE1W7	BE1T3	BE1T4	BE1T5	BE1T6
Property Number		P001				P002	P003	P004	P005
Sample Date		4/6/2018	4/6/2018	4/6/2018	4/6/2018	4/5/2018	4/5/2018	4/5/2018	4/5/2018
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
TO-15 VOC									
1,1,1-Trichloroethane	174,000	1.1 U	1.1 U	**8.4**	1.1 U	1.1 U	1.1 U	1.1 U	**2.4**
1,1-Dichloroethane	NS	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	NS	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
3-Chloropropene	NS	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Chloroethane	NS	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
cis-1,2-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Tetrachloroethene (PCE)	360	**0.79 J**	**1.5**	**11**	**1.7**	**1.1 J**	**0.78 J**	1.4 U	**11**
trans-1,2-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Trichloroethene (TCE)	15.9	**0.2 J**	1.1 U	**1.5**	**2.5**	1.1 U	**0.37 J**	**0.27 J**	**5.5**
Vinyl chloride	NS	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Notes:
TO-15 VOC: Toxic Organics-15 Volatile Organic Compounds.
RST 3: Removal Support Team 3.
CLP: Contract Laboratory Program.
NS: Not specified.
J: Estimated value.
U: Non-detected.
[1]U.S. Environmental Protection Agency (EPA) Site-Specific Regional Screening Levels (RSLs) for residential air.
EPA RSLs and soil gas analytical results are presented in micrograms per cubic meter ($\mu g/m^3$).
Bold result values are detections.

Table 2: Validated Soil Gas Analytical Results Summary Table - TO-15 VOCs
Magna Metals Site
Cortlandt, Westchester County, New York
April 2018

RST 3 Sample Number	[1]EPA Site-Specific RSLs Residential Air	P006-SG001-180405-01	P007-SG001-180405-01	P008-SG001-180405-01	P009-SG001-180405-01	P010-SG001-180406-01	P011-SG001-180406-01	P012-SG001-180406-01
CLP Number		BE1T7	BE1T8	BE1T9	BE1W0	BE1W1	BE1W2	BE1W3
Property Number		**P006**	**P007**	**P008**	**P009**	**P010**	**P011**	**P012**
Sample Date		4/5/2018	4/5/2018	4/5/2018	4/5/2018	4/6/2018	4/6/2018	4/6/2018
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
TO-15 VOC								
1,1,1-Trichloroethane	174,000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	NS	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	NS	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
3-Chloropropene	NS	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Chloroethane	NS	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
cis-1,2-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	**0.84**	0.79 U	0.79 U	0.79 U
Tetrachloroethene (PCE)	360	**0.62 J**	**0.29 J**	**0.31 J**	**0.67 J**	**1.1 J**	1.4 U	1.4 U
trans-1,2-Dichloroethene	NS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Trichloroethene (TCE)	15.9	1.1 U	1.1 U	**0.17 J**	**2.6**	**0.094 J**	**0.1 J**	1.1 U
Vinyl chloride	NS	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Notes:
TO-15 VOC: Toxic Organics-15 Volatile Organic Compounds.
RST 3: Removal Support Team 3.
CLP: Contract Laboratory Program.
NS: Not specified.
J: Estimated value.
U: Non-detected.
[1]U.S. Environmental Protection Agency (EPA) Site-Specific Regional Screening Levels (RSLs) for residential air.
EPA RSLs and soil gas analytical results are presented in micrograms per cubic meter ($\mu g/m^3$).
Bold result values are detections.

ATTACHMENT C

Photographic Documentation Log

Photographic Documentation Log
Magna Metals Site
Cortlandt, Westchester County, New York
April 2 through April 6, 2018

Photograph 1: The U.S. Environmental Protection Agency (EPA) and Weston Solutions, Inc., Removal Support Team 3 (RST 3) conducted a vapor intrusion air sampling event at 11 residences located in the vicinity of the Magna Metals Site (the Site) and one commercial facility located on-site. Above is a view of RST 3 personnel preparing to install a sub-slab soil gas sampling port in the basement at Property P004.

Photograph 2: View of the Summa canister set up for sub-slab soil gas sample in the basement at Property P004.

Photograph 3: View of the Summa canister set up for sub-slab soil gas sample at Property P001. For the soil gas samples, the flow controller attached to the Summa canister was connected to the sub-slab sampling port via Teflon® tubing and stainless steel Swagelok® fittings.

Photograph 4: View of the Summa canister set up for sub-slab soil gas sample in the secondary warehouse at Property P001.

ATTACHMENT D

Chains of Custody Record and FedEx Airbill

USEPA
DateShipped: 4/6/2018
CarrierName: FedEx
AirbillNo: 805055542239

CHAIN OF CUSTODY RECORD
Site #: 18-0012
Contact Name: Smita Sumbaly
Contact Phone: 732-585-4410

No: 2-040618-173106-0001
Cooler #: 1
Lab: Test America Burlington
Lab Phone: 802-660-1990

Lab #	Sample #	CLP Sample #	Matrix	Sample Media	Sample Type	Sample Date	Sample Time	Start Pressure	Stop Pressure	Start_Date	Start_Time	Start_Temperature	Stop_Temperature	Lab QC	Analyses
	P001-SG001-180406-01	BE1W4	Soil Gas	Summa Canister	Field Sample	4/6/2018	10:01	-30	-4	4/5/2018	10:02:00 AM	57.3	50.9	N	VOCs TO-15 (SCAN)
	P001-SG002-180406-01	BE1W5	Soil Gas	Summa Canister	Field Sample	4/6/2018	10:09	-30	-8	4/5/2018	10:10:00 AM	70.1	70.1	N	VOCs TO-15 (SCAN)
	P001-SG003-180406-01	BE1W6	Soil Gas	Summa Canister	Field Sample	4/6/2018	10:24	-30	-8	4/5/2018	10:29:00 AM	68	68	N	VOCs TO-15 (SCAN)
	P001-SG004-180406-01	BE1W7	Soil Gas	Summa Canister	Field Sample	4/6/2018	10:38	-30	-6	4/5/2018	10:40:00 AM	63.5	62.5	N	VOCs TO-15 (SCAN)

Special Instructions: Analyze all samples for Modified EPA TO-15 Method (SCAN) per Case No. 18-0012, 1 week preliminary TAT, 2 week validated turnaround time (TAT).

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all Analysis	Weston RST3	4/6/18 1800 hrs			

USEPA
DateShipped: 4/6/2018
CarrierName: FedEx
AirbillNo: 805055542239

CHAIN OF CUSTODY RECORD
Site #: 18-0012
Contact Name: Smita Sumbaly
Contact Phone: 732-585-4410

No: 2-040618-174926-0002
Cooler #: 2
Lab: Test America Burlington
Lab Phone: 802-660-1990

Lab #	Sample #	CLP Sample #	Matrix	Sample Media	Sample Type	Sample Date	Sample Time	Start Pressure	Stop Pressure	Start_Date	Start_Time	Start_Temperature	Stop_Temperature	Lab QC	Analyses
	P002-SG001-180405-01	BE1T3	Soil Gas	Summa Canister	Field Sample	4/5/2018	07:08	-30	-10	4/4/2018	7:15:00 AM	61.1	57.5	N	VOCs TO-15 (SCAN)
	P003-SG001-180405-01	BE1T4	Soil Gas	Summa Canister	Field Sample	4/5/2018	07:45	-28	-12	4/4/2018	7:51:00 AM	75.2	82	N	VOCs TO-15 (SCAN)
	P004-SG001-180405-01	BE1T5	Soil Gas	Summa Canister	Field Sample	4/5/2018	08:30	-26	-4	4/4/2018	8:31:00 AM	65.5	68	N	VOCs TO-15 (SCAN)
	P005-SG001-180405-01	BE1T6	Soil Gas	Summa Canister	Field Sample	4/5/2018	09:08	-30	-5	4/4/2018	9:13:00 AM	60.8	59.3	N	VOCs TO-15 (SCAN)

Special Instructions: Analyze all samples for Modified EPA TO-15 Method (SCAN) per Case No. 18-0012, 1 week preliminary TAT, 2 week validated turnaround time (TAT).

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ana/Analysis	Woston RSTS	4/6/18 1800 hrs			

USEPA
DateShipped: 4/6/2018
CarrierName: FedEx
AirbillNo: 805055542239

CHAIN OF CUSTODY RECORD
Site #: 18-0012
Contact Name: Smita Sumbaly
Contact Phone: 732-585-4410

No: 2-040618-175206-0003
Cooler #: 3
Lab: Test America Burlington
Lab Phone: 802-660-1990

Lab #	Sample #	CLP Sample #	Matrix	Sample Media	Sample Type	Sample Date	Sample Time	Start Pressure	Stop Pressure	Start_Date	Start_Time	Start_Temperature	Stop_Temperature	Lab QC	Analyses
	P006-SG001-180405-01	BE1T7	Soil Gas	Summa Canister	Field Sample	4/5/2018	09:42	-30	-6	4/4/2018	9:46:00 AM	65.5	66.5	N	VOCs TO-15 (SCAN)
	P007-SG001-180405-01	BE1T8	Soil Gas	Summa Canister	Field Sample	4/5/2018	14:59	-30	-2	4/4/2018	3:03:00 PM	60.5	57.8	N	VOCs TO-15 (SCAN)
	P008-SG001-180405-01	BE1T9	Soil Gas	Summa Canister	Field Sample	4/5/2018	18:00	-30	-7	4/4/2018	6:04:00 PM	63.5	64.4	N	VOCs TO-15 (SCAN)
	P009-SG001-180405-01	BE1W0	Soil Gas	Summa Canister	Field Sample	4/5/2018	18:33	-30	-16	4/4/2018	6:36:00 PM	62.9	63.2	N	VOCs TO-15 (SCAN)

Special Instructions: Analyze all samples for Modified EPA TO-15 Method (SCAN) per Case No. 18-0012, 1 week preliminary TAT, 2 week validated turnaround time (TAT).

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all/Analysis	Weston RSTS	4/6/18 1800 hrs			

USEPA
DateShipped: 4/6/2018
CarrierName: FedEx
AirbillNo: 805055542239

CHAIN OF CUSTODY RECORD
Site #: 18-0012
Contact Name: Smita Sumbaly
Contact Phone: 732-585-4410

No: 2-040618-175307-0004
Cooler #: 4
Lab: Test America Burlington
Lab Phone: 802-660-1990

Lab #	Sample #	CLP Sample #	Matrix	Sample Media	Sample Type	Sample Date	Sample Time	Start Pressure	Stop Pressure	Start_Date	Start_Time	Start_Temperature	Stop_Temperature	Lab QC	Analyses
	P010-SG001-180406-01	BE1W1	Soil Gas	Summa Canister	Field Sample	4/6/2018	13:13	-30	-6	4/5/2018	1:15:00 PM	65.3	62.6	N	VOCs TO-15 (SCAN)
	P011-SG001-180406-01	BE1W2	Soil Gas	Summa Canister	Field Sample	4/6/2018	13:36	-29	-4	4/5/2018	1:39:00 PM	66.5	63.5	N	VOCs TO-15 (SCAN)
	P012-SG001-180406-01	BE1W3	Soil Gas	Summa Canister	Field Sample	4/6/2018	14:00	-30	-1	4/5/2018	2:08:00 PM	71.6	73.4	N	VOCs TO-15 (SCAN)

Special Instructions: Analyze all samples for Modified EPA TO-15 Method (SCAN) per Case No. 18-0012, 1 week preliminary TAT, 2 week validated turnaround time (TAT).

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all/Analysis	Weston RST3	4/6/18 1810 hrs			

FedEx Express **NEW** Package US Airbill

FedEx Tracking Number 8050 5554 2239

Form ID No. 0200 — Sender's Copy

1 From *Please print and press hard.*

Date 4/6/18 Sender's FedEx Account Number 402356103

Sender's Name Michael Garibaldi Phone (908) 565-2971

Company Weston Solutions, Inc.

Address 1090 King Georges Post Road, Suite 201 Dept./Floor/Suite/Room

City Edison State NJ ZIP 08837

2 Your Internal Billing Reference 4146
First 24 characters will appear on invoice. OPTIONAL

3 To

Recipient's Name Sample Receiving / Don Davidich Phone (802) 660-1990

Company Test America Burlington

Address 30 Community Drive Suite 11 Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address
Use this line for the HOLD location address or for continuation of your shipping address.

City South Burlington State VT ZIP 05403

☐ HOLD Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.

☐ HOLD Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

4 Express Package Service • To most locations.
NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

☒ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.

☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging • Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☒ SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

☐ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Acct. No. / Credit Card No. 402356103 Exp. Date

Total Packages	Total Weight	Total Declared Value†
4	____ lbs.	$ ____ .00

†Our liability is limited to US$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

644

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Edison, NJ 08837

Location: LDJA
Device ID: LDJA-PDS03
Employee: 180234
Transaction: 910261197205

FIRST OVERNIGHT
805055542239 133.60 lb (S) 292.95
SDR Delivery
780417938891
SDR Delivery
780417938906
SDR Delivery
780417938917
SDR Delivery

Scheduled Delivery Date 04/07/2018

Shipment subtotal: 292.95
Total Due: 292.95
FedEx Account: 292.95
*****6103

H = Weight entered manually
S = Weight read from scale
T = Taxable item

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April 6, 2018 6:25:30 PM

ATTACHMENT E

Validated Data Package

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
DESA/HWSB/HWSS
2890, Woodbridge Avenue, Edison, NJ 08837

EXECUTIVE NARRATIVE

Case No.: 18-0012
Site: Magma Metals
Cortlandt, NY

SDG No.: BE1W4
Laboratory: Test America

QAPP:
Contractor: Weston Solutions, Inc.
Document Control Number: RST3-04-D-0147, March 2018

Number of Samples: 15 (TO-15)

Sample Type: TO-15
Sampling date: 04/05-06/2018

SUMMARY:

Critical: Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "**R**" rejected.

Major: A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data have been qualified "**J**" estimated.

Minor: The level of uncertainty is acceptable. No significant bias in the data was observed.

Critical Findings: None

Major Findings: None

Minor Findings: None

COMMENT: No action levels or field QC are specified in the QAPP. Summary Reports were generated without action levels.

Validator's Signature:

Name: **Narendra Kumar** **Date: 04/30/ 2018**

Affiliation: **EPA R2/DESA/HWSB/HWSS**

Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J +	The result is an estimated quantity, but the result may be biased high.		
J –	The result is an estimated quantity, but the result may be biased low.		
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		***The analysis indicates the presence of an analyte for which there is presumptive*** *evidence to make a "tentative identification".*	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to **pesticide and Aroclor** results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to **pesticide and Aroclor** results when GC/MS analysis was attempted but was unsuccessful.	

DATA ASSESSMENT

Data Validation report for Organic Analysis pursuant to the standard operating procedure (SOP) HW-31 (Revision 6) entitled "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15)".

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The following action was taken in the samples and analytes shown due to excessive holding time.

No problems were found for this criterion.

2. Leak Test Evaluation:

All canisters are leak tested prior to each sampling use. The initial pressure (approximately 206 kPa or 30 psi) is measured, the canister valve is closed, and the final pressure is checked after 24 hours. If acceptable, the pressure should not vary more than 13.8 kPa (2 psig) over the 24-hour period.

No problems were found for this criterion.

3. Canister Certification:

Canister certification involves two procedures: Blank Analysis and Blank Spike Analysis. The canister is "Certified Clean" if target analytes are < 0.2 ppbv. For the spiked canister, the acceptable % difference for any target compound at a nominal 10-ppbv concentration in humidified zero air is <30%.

No problems were found for this criterion.

4. Laboratory Control/Lab Control Duplicate Recovery (LCS/LCSD):

The LCS/LCS Duplicate data is generated to determine the long-term precision and accuracy of the analytical method. The LCS/LCS Duplicate may be used in conjunction with other QC criteria for additional qualification of data. The LCS is analyzed once per 24-hour analytical sequence and concurrently with the samples in the SDG. Percent recovery (%R) is expected in 70-130 % range. Relative percent difference (RPD) limit between LCS and LCSD is expected to be 25.

No problems were found for this criterion.

5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, field, or rinse blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples throughout field operations. If the concentration of the analyte is less than or equal two times (2X) the method blank concentration, the analytes are qualified as non-detects, "U".

A) Method blank contamination:

No issues were identified for this criterion.

B) Trip / Field or rinse blank contamination:

Sample BE8NO is trip blank sample. Trip report mentions that there were problems with this sample. Trip blank canister end pressure is reported as zero. This sample was discarded from consideration and the SDG was validated as if no blank was taken.

C) TIC's "R" rejected:

Not applicable.

6. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene.

If the mass calibration is in error, all associated data will be classified as unusable "R".

No problems were found for this criterion.

7. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance. Percent Relative Standard Deviation (%RSD) is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent Difference (%D) compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be ± 30% for all Target analytes. %D must be ± 30% for all Target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detects data may be qualified "R".

CCV showed higher recovery for 1,1,1-Trichloroethane. This was not detected in any sample. No qualifications were applied.

8. INTERNAL STANDARDS PERFORMANCE:

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than 40% from the most recent valid calibration standard area. The retention time of the internal standard must not vary more than 20 seconds from the latest daily (24-hour) calibration standard. If the area count is greater the 40% range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated "J", and all non-detects are not flagged. If the area count is less than the 40% range of the associated standard, all of the positive

results for compounds quantitated with that IS are qualified as estimated "J", and all non-detects are qualified as unusable "UJ". If the area count is < 25%, flag all non-detects as unusable "R".

If an internal standard retention time varies by more than 20 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction.

No problems were found for this criterion.

9. COMPOUND IDENTIFICATION:

Compounds on the target analyte list (TCL) are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within 0.06 RRT units of the standard compound and have ion spectra which have a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.

No problems were found for this criterion.

10. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:

Samples may be re-analyzed at dilution, or for other QC reasons. In such cases, the best result values are consolidated in one single report or Form 1. In the EDD results are consolidated into one set using reportable "YES/NO" function.

There are no dilution runs.

11. FIELD DUPLICATE ANALYSIS

Analysis of field duplicates may be performed to assess the precision of sampling. Samples within the data package which are duplicates are identified. Criteria provided in the QAPP is used to assess the data. In the absence of QAPP guidance, percent difference (%RPD) greater than 50% are noted and professional judgment is used to qualify the data.

Not required per QAPP.

12. CONTRACT PROBLEMS NON-COMPLIANCE:

Please see section 14.

13. FIELD DOCUMENTATION:

No issues were identified.

14. OTHER CONSIDERATIONS:

- Laboratory did not provide all TO-15 detects in their method blanks reports.
- Reports for clean canister analysis do not provide reports listing all TO-15 compounds analyzed.
- Laboratory should provide details of their ppbv to µg/m^3 conversion ensuring that it is consistent with EPA guidelines. Laboratory should include this information in their SDG narrative.

- SDG narrative does not contain signature of the person responsible. It also does not contain statement of responsibility.
- Canister pressure at the time of sample receipt is not provided in the data package.

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W5 Lab Sample ID: 200-43001-2

Matrix: Air Lab File ID: 30087_08.D

Analysis Method: TO-15 Date Collected: 04/06/2018 10:09

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.20	U	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.22		0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W5 Lab Sample ID: 200-43001-2

Matrix: Air Lab File ID: 30087_08.D

Analysis Method: TO-15 Date Collected: 04/06/2018 10:09

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.1	U	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.5		1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W6 Lab Sample ID: 200-43001-3

Matrix: Air Lab File ID: 30087_09.D

Analysis Method: TO-15 Date Collected: 04/06/2018 10:24

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 16:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	1.5		0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.29		0.20	0.0091
127-18-4	Tetrachloroethene	165.83	1.5		0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W6 Lab Sample ID: 200-43001-3

Matrix: Air Lab File ID: 30087_09.D

Analysis Method: TO-15 Date Collected: 04/06/2018 10:24

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 16:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	8.4		1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.5		1.1	0.049
127-18-4	Tetrachloroethene	165.83	11		1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W7 | Lab Sample ID: 200-43001-4

Matrix: Air | Lab File ID: 30087_10.D

Analysis Method: TO-15 | Date Collected: 04/06/2018 10:38

Sample wt/vol: 200(mL) | Date Analyzed: 04/13/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-624 ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128434 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.46		0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.25		0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W7 Lab Sample ID: 200-43001-4

Matrix: Air Lab File ID: 30087_10.D

Analysis Method: TO-15 Date Collected: 04/06/2018 10:38

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 17:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	2.5		1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.7		1.4	0.066

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T3 Lab Sample ID: 200-43002-1

Matrix: Air Lab File ID: 30087_11.D

Analysis Method: TO-15 Date Collected: 04/05/2018 07:08

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.20	U	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.16	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T3 Lab Sample ID: 200-43002-1

Matrix: Air Lab File ID: 30087_11.D

Analysis Method: TO-15 Date Collected: 04/05/2018 07:08

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.1	U	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.1	J	1.4	0.066

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T4 Lab Sample ID: 200-43002-2

Matrix: Air Lab File ID: 30087_12.D

Analysis Method: TO-15 Date Collected: 04/05/2018 07:45

Sample wt/vol: 282(mL) Date Analyzed: 04/13/2018 19:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.069	J	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.11	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T4 Lab Sample ID: 200-43002-2

Matrix: Air Lab File ID: 30087_12.D

Analysis Method: TO-15 Date Collected: 04/05/2018 07:45

Sample wt/vol: 282(mL) Date Analyzed: 04/13/2018 19:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	0.37	J	1.1	0.049
127-18-4	Tetrachloroethene	165.83	0.78	J	1.4	0.066

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T5 Lab Sample ID: 200-43002-3

Matrix: Air Lab File ID: 30087_13.D

Analysis Method: TO-15 Date Collected: 04/05/2018 08:30

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.050	J	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20	0.0098

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T5 Lab Sample ID: 200-43002-3

Matrix: Air Lab File ID: 30087_13.D

Analysis Method: TO-15 Date Collected: 04/05/2018 08:30

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	0.27	J	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4	0.066

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T6 Lab Sample ID: 200-43002-4

Matrix: Air Lab File ID: 30087_14.D

Analysis Method: TO-15 Date Collected: 04/05/2018 09:08

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 20:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.43		0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	1.0		0.20	0.0091
127-18-4	Tetrachloroethene	165.83	1.6		0.20	0.0098

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T6 Lab Sample ID: 200-43002-4

Matrix: Air Lab File ID: 30087_14.D

Analysis Method: TO-15 Date Collected: 04/05/2018 09:08

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 20:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	2.4		1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	5.5		1.1	0.049
127-18-4	Tetrachloroethene	165.83	11		1.4	0.066

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Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W1 Lab Sample ID: 200-43003-1

Matrix: Air Lab File ID: 30087_15.D

Analysis Method: TO-15 Date Collected: 04/06/2018 13:13

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 21:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.018	J	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.17	J	0.20	0.0098

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W1 Lab Sample ID: 200-43003-1

Matrix: Air Lab File ID: 30087_15.D

Analysis Method: TO-15 Date Collected: 04/06/2018 13:13

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 21:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	0.094	J	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.1	J	1.4	0.066

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W2 Lab Sample ID: 200-43003-2

Matrix: Air Lab File ID: 30087_16.D

Analysis Method: TO-15 Date Collected: 04/06/2018 13:36

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 22:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.019	J	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W2 Lab Sample ID: 200-43003-2

Matrix: Air Lab File ID: 30087_16.D

Analysis Method: TO-15 Date Collected: 04/06/2018 13:36

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 22:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	0.10	J	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W3 Lab Sample ID: 200-43003-3

Matrix: Air Lab File ID: 30087_17.D

Analysis Method: TO-15 Date Collected: 04/06/2018 14:00

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 23:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.20	U	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W3 Lab Sample ID: 200-43003-3

Matrix: Air Lab File ID: 30087_17.D

Analysis Method: TO-15 Date Collected: 04/06/2018 14:00

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 23:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128434 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.1	U	1.1	0.049
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T7 Lab Sample ID: 200-43004-1

Matrix: Air Lab File ID: 30091-06.d

Analysis Method: TO-15 Date Collected: 04/05/2018 09:42

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.20	U	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.091	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T7 Lab Sample ID: 200-43004-1

Matrix: Air Lab File ID: 30091-06.d

Analysis Method: TO-15 Date Collected: 04/05/2018 09:42

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.1	U	1.1	0.049
127-18-4	Tetrachloroethene	165.83	0.62	J	1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T8 Lab Sample ID: 200-43004-2

Matrix: Air Lab File ID: 30091-07.d

Analysis Method: TO-15 Date Collected: 04/05/2018 14:59

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.20	U	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.043	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T8 Lab Sample ID: 200-43004-2

Matrix: Air Lab File ID: 30091-07.d

Analysis Method: TO-15 Date Collected: 04/05/2018 14:59

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 15:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	1.1	U	1.1	0.049
127-18-4	Tetrachloroethene	165.83	0.29	J	1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T9 Lab Sample ID: 200-43004-3

Matrix: Air Lab File ID: 30091-08.d

Analysis Method: TO-15 Date Collected: 04/05/2018 18:00

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.032	J	0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.046	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1T9 Lab Sample ID: 200-43004-3

Matrix: Air Lab File ID: 30091-08.d

Analysis Method: TO-15 Date Collected: 04/05/2018 18:00

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 16:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	0.17	J	1.1	0.049
127-18-4	Tetrachloroethene	165.83	0.31	J	1.4	0.066

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W0 | Lab Sample ID: 200-43004-4

Matrix: Air | Lab File ID: 30091-09.d

Analysis Method: TO-15 | Date Collected: 04/05/2018 18:33

Sample wt/vol: 200(mL) | Date Analyzed: 04/13/2018 17:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-624 ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 128440 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	0.018
75-00-3	Chloroethane	64.52	0.50	U	0.50	0.13
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	0.035
107-05-1	3-Chloropropene	76.53	0.50	U	0.50	0.063
156-60-5	trans-1,2-Dichloroethene	96.94	0.20	U	0.20	0.050
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	0.017
156-59-2	cis-1,2-Dichloroethene	96.94	0.21		0.20	0.029
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	0.026
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	0.034
79-01-6	Trichloroethene	131.39	0.49		0.20	0.0091
127-18-4	Tetrachloroethene	165.83	0.098	J	0.20	0.0098

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43001-1

SDG No.: BE1W4

Client Sample ID: BE1W0 Lab Sample ID: 200-43004-4

Matrix: Air Lab File ID: 30091-09.d

Analysis Method: TO-15 Date Collected: 04/05/2018 18:33

Sample wt/vol: 200(mL) Date Analyzed: 04/13/2018 17:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 128440 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	62.50	0.51	U	0.51	0.046
75-00-3	Chloroethane	64.52	1.3	U	1.3	0.34
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79	0.14
107-05-1	3-Chloropropene	76.53	1.6	U	1.6	0.20
156-60-5	trans-1,2-Dichloroethene	96.94	0.79	U	0.79	0.20
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81	0.069
156-59-2	cis-1,2-Dichloroethene	96.94	0.84		0.79	0.11
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1	0.14
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81	0.14
79-01-6	Trichloroethene	131.39	2.6		1.1	0.049
127-18-4	Tetrachloroethene	165.83	0.67	J	1.4	0.066